

Early ambulation following multiple, stable pelvic ring fractures improves outcome in an older adult in the acute care setting: A Case Report

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Background and Purpose: One in three adults over the age of 65 and one in two adults over the age of 80 fall annually often resulting in lower limb and pelvic fractures¹. The CDC estimates that 95% of that yearly hospital admissions for hip fractures result from a fall². Fall-related injuries can lead to impaired ambulation and functional disabilities, with fewer than half of those affected regaining their full prior level of function. Furthermore, loss of mobility can result in exacerbation of pre-existing, systemic comorbidities³.

Current research regarding treatment for pelvic ring fractures (PRF) focuses on surgical protocols for fixation with implementation of hardware and subsequent rehabilitation. Research on non-operative treatment tends to focus on insufficiency fractures, primarily of the sacrum and pelvic ring in older adults. There are established guidelines for the care and rehabilitation of unilateral pelvic ring injuries; however, similar guidelines for patients with multiple, but stable PRF in the acute care setting do not exist. Thus, the purpose of this case report is to discuss the effects of early ambulation and weight bearing exercise on pain and functional mobility in an older patient with multiple, stable PRFs in the acute care setting

Case Description: A 67-year-old male presented to the emergency room with various PRFs from two separate falls. The patient's post-fall presentation included an intertrochanteric fracture, stable left pubic ramus fracture and stable left ilium fracture, resulting in implementation of ORIF on the left and a stable upper sacral fracture. The patient concurrently presented multiple structural and systemic co-morbidities. The patient began physical therapy treatment 26 days after his initial fall and received nine physical therapy treatments over the course of his 10-day stay in the acute care setting. Therapy included bed level lower extremity exercise, weight bearing exercise and ambulation.

Outcomes: The patient demonstrated a decrease in pain and an increase in functional mobility and endurance. Pain, measured using the verbal NPRS scale, decreased from an 8/10 to 4/10 during ambulation with a subsequent decrease in pain medication provided. Functional mobility and endurance were determined by total distance ambulated, which increased from 5 feet to 420 feet during the intervention.

Discussion: Evidence suggests that initial bed rest followed by progressive weight bearing is an appropriate treatment progression for patients with a unilateral stable PRFs⁴. This case suggests that early ambulation and weight bearing resulted in improved mobility and an overall decrease in self-reported pain. Progressing from a step-to gait pattern to a step-through gait pattern has been shown to increase stability and aid in reducing the risk of falls in older adults⁵. Potential limitations include the patient's multiple co-morbidities, which may increase the risk for bone fracture and inhibit fracture

healing⁶. Early mobilization in this patient helped to prevent the negative sequelae of cardiopulmonary disease and other comorbidities associated with prolonged bed rest.

Work Cited:

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